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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,287

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CU-3301 RJS

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EXAMINER

XIAO, KE

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/625,287	Applicant(s) PARK ET AL.	
	Examiner Ke Xiao	Art Unit 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-10 is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on March 28<sup>th</sup>, 2006. These drawings are not completely accepted:

Regarding the changes made to Figure 3, the new figure does not match with the detailed specification for the following reasons.

STV2 needs to be extended further down to connect with the third bus line from the left in order to supply element 240;

Element 220 should contain switches SW1 through SW29 corresponding to shift registers SR2 through SR30; and

Element 240 should contain switches SW30 through SW58 corresponding to shift registers SR32 through SR60.

SR32 should look exactly like SR1 in that it has two inputs STV2 and CPV.

The output of SR30 cannot be connected to the input OES cause it would create a signal conflict.

Amendments to all other figures are accepted.

### ***Specification***

The amendment filed November 27<sup>th</sup>, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no

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amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The newly amendments to paragraphs [0034] and [0035] are not supported by the original disclosure. Specifically all second shift register should be referred to as second shift register SR31-SR60. Second SR31 is not part of the first shift register group which consists of shift registers SR1-SR30. Third, SW30 does not switch to an output terminal of the shift register SR32 instead it provides the input for SR32 not shift register SR31 as stated in the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 2** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding **Claim 2**, the claim recites the limitation "wherein the active address interval is substantially equivalent to being driven at 85 Hz when a refresh rate is 60 Hz". However there is no support for such a limitation in the detailed specification and

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no explanation of how the device would operate under such a limitation. The well known definition of frequency in the art is how many times a full period of a signal is repeated during a fixed time period, usually one second. And according to the detailed specification the refresh rate is 60 Hz which is controlled by the V\_sync which has a full period of 16.7ms (Fig. 6), and the active address interval is driven at 60 Hz as well which is controlled by the CPV which has a full period of 16.7ms (11.2ms + 5.5 ms) the same as the V\_sync (Fig. 6). Further according to the detailed specification the refresh rate as well as the active address interval *must* be synced with one another in order for the display to be operable.

### ***Allowable Subject Matter***

**Claims 1 and 3-10** are allowed.

Regarding independent **Claim 1**, prior art (Nose, Fig. 13) teaches all limitations of the claim except a current boosting section for increasing current amount supplied to the gate bus lines during the vertical blanking period interval in response to a pulse width modulation signal. It is noted that prior art does show a current boosting section responsive to a pulse width modulation signal. However said current boosting section is not used to supply gate bus lines and is not operational during a vertical blanking period as claimed.

### ***Response to Arguments***

Applicant's arguments filed August 10<sup>th</sup>, 2007 have been fully considered but they are not persuasive.

The applicant argues that the amendment to the specification are originally supported by the specification and cites paragraph [0036] as supports of said amendment. However paragraph [0036] does not mention the numbering or the connection of the switches only the outputs of the first and second set of shift registers and how they are related, and has nothing to do with the changes made to the switches on the drawings and in the specification. The objection is maintained.

The rejection is also maintained. Neither the specification nor the drawings supports an 85Hz driving rate. Specifically the drawings clearly show a 60Hz driving rate as well as a 60Hz refresh rate. The rejection is maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ke Xiao whose telephone number is (571) 272-7776. The examiner can be reached on Monday through Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 1<sup>st</sup>, 2007 - kx -



SUMATI LEFKOWITZ  
SUPERVISORY PATENT EXAMINER